

Why is NPRB supporting this effort?

- **Early debate within NPRB on whether on role in long-term monitoring. Isn't that a mission requirement for agencies such as NOAA, USFWS, etc?**
- **Growing list of indicators in SAFE document - meritorious, but data collection and analysis are not free.**
- **Research funds are in high demand and short supply**
- **We want to be responsive to managers, especially as they attempt to move toward EBM.**
- **This workshop will help NPRB shape its research agenda and could help federal agencies justify their budget requirements**

What helps make a good indicator from a manager's viewpoint?

- **Sensitive to system change and unambiguous**
- **High likelihood that you will be right in its value and meaning, i.e., will not fail under intense scrutiny after I have stuck my neck out!**
- **Clear understanding of whether they are related directly or indirectly to F**
- **Robust and defensible; Simple and believable/convincing**
- **Objective without inherent bias injected by those doing the measurements or analyses**
- **Developed on the basis of an explicit methodology (do we need to take a breather and have NPRB fund this?)**
- **Vetted through the scientific and stakeholder communities, and council process: teams, SSC, AP and council**
- **Good benefit/cost ratio for collecting required data or sufficient justification for expending the funds required**
- **What are the lags associated with the indicator – do we have to wait a long time for an indication that it has recovered, and that presumably, fishery restrictions can be lifted?**
- **Will withstand outside expert and court scrutiny**

Informing the Council

- **KISS but have the firepower to back it up**
- **Cast a broad net, but then boil it down and produce executive summary with a short list while indicating they are based on extensive underlying studies – talking points**
- **Cut the scientific jargon and technical language – this is not a dissertation defense and eyes will soon glaze over**
- **Highlight the truly important or leading indicators, especially those that have a downstream economic or regulatory impact. Gloss over the rest. Use the Loh-lee Low stoplight approach.**
- **Note which ones are mainly a curiosity factor, which one may have future consequences, and which ones should be examined more closely now. Sound cautious warnings if necessary.**
- **Need to go through a conditioning and educational process with the SSC, AP and Council and that could take several years – you essentially are getting buy-in to your indicators and what actions might be needed.**
- **Make sure the SSC agrees with your conclusions and supports and amplifies your presentation to the council – if the SSC doesn't think its important, neither will the council**

How will those indicators be used?

- **You are beginning to build a defensible record of decision**
- **If Council adopts objectives and corresponding limits on indicator values, we move quickly from awareness to action**
- **That's when we move from brown bag lunch to very contentious environment with money at stake**
- **“In an ideal world, everyone would believe what we say”**
- **In real world, indicator will be subject to intense scrutiny and dissection by the stakeholders, the SSC, AP, Council, outside expert scientists, and maybe a blue ribbon panel**
- **Immediate action will not be taken – alternative solutions will be crafted and analyzed through NEPA. Regulatory analyses will determine the costs of restricting the fleets. There will be denial and fingerpointing.**
- **Impacts will be different depending on fleet segment – big boats vs small; inshore-offshore; gear types, etc**
- **This intense scrutiny will place extreme pressure on the presenting analyst – which means that indicator has to be right and defensible out in broad daylight – not just in the science that ends up in peer-reviewed journals**
- **Even a senator or two might jump into the fray and call Hogarth – can get hot mighty quickly!**

- **Arguments have to be so good that they convince at least 6 members of the 11-member council to vote in the affirmative to take action, and maybe even an emergency action**
- **Must provide ironclad justification for a potentially multimillion dollar decision and convince a federal judge to defer to the expertise of NOAA and not strike down the decision of all those in the decision sequence that have stuck their necks out!**
- **Will your indicators be that good? If not now – when?**